

**GOVERNMENT OF INDIA
EARTH SCIENCES
LOK SABHA**

STARRED QUESTION NO:37
ANSWERED ON:16.11.2007
WEATHER FORECASTING
Badiga Shri Ramakrishna

Will the Minister of EARTH SCIENCES be pleased to state:

- (a) whether his Ministry has studied the technologies used in countries like Germany and other European countries where exact minute-by-minute weather related forecasting is done;
- (b) if so, the outcome of such studies; and
- (c) the efforts made to adopt such technologies in India?

Answer

MINISTER OF SCIENCE AND TECHNOLOGY AND MINISTER OF EARTH SCIENCES (SHRI KAPIL SIBAL)

(a) to (c) – A statement is laid on the table of the House.

STATEMENT REFERRED TO IN REPLY TO PARTS (A) TO (C) OF LOK SABHA STARRED QUESTION NO. 37 FOR ANSWER ON 16th November 2007.

(a) Yes Sir.

(b) & (c) Based on the assessment and our own modernization plans both in respect of observational infrastructure (Land and Ocean platforms) and forecasting capabilities involving advanced prediction models, the following activities are already launched

1. A comprehensive modernization programme of India Meteorological Department (IMD) and National Centre for Medium Range Weather Forecasting (NCMRWF) is being taken up with following components:

- i) Procurement of high performance computers for forecasting
- ii) Enhancement of observation systems including Automated Rain Gauges (ARG), Automatic Weather Stations (AWS), improved Radiosonde systems for upper level data, acquisition of Doppler Weather Radar (DWR) etc.

2. The following efforts have already been made to improve the accuracy of weather forecasts:

- i) 125 automatic weather stations (AWS) have been made operational for monsoon season of 2007
- ii) An improved numerical model with 50Km resolution, has been implemented.
- iii) Additional satellite observations are being assimilated in the numerical models for improving the forecast since May 2007
- iv) Experimental real-time implementation of weather research forecasting (WRF) model at 27Km grid resolution taking input and boundary fields from 50Km grid global forecast model
- v) A multi-model Man-Machine-Mix approach has been adopted for improving the forecast skill.

Some of these initiatives have resulted in improvement of the short and medium range weather forecasts during the monsoon season of 2007.